

VIA E-FILE

PATENT APPLICATION

Docket No. 14531.110

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of)
	J. Rob Bowers)
)
Serial No.:	09/896,733) Art Unit
) 2623
Filed:	June 29, 2001)
)
Conf. No.:	9135)
)
For:	AGGREGATION OF STREAMING MEDIA)
	TO IMPROVE NETWORK PERFORMANCE)
)
Examiner:	Jade O. Laye)
)
Customer No.:	047973)

AMENDMENT "C"

VIA E-FILE AMENDMENT

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Dear Sir:

In response to the Office action of March 21, 2006 (paper no. 20060315), please amend the above-identified application as follows:

Amendments to the Claims are reflected in the listing of claims which begins on page 2 of this paper.

Remarks/Arguments begin on page 11 of this paper.

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) In a system having a plurality of receivers and at least one aggregation module, a method for providing real-time streaming media from a wide area network to the plurality of receivers, the method comprising the following acts:

(a) receiving at at least one aggregation module a request for real-time streaming media accessible via a wide area network from each of a plurality of receivers, each request comprising an identifier representative of the receiver making the request;

(b) after act (a), using the at least one aggregation module, ~~removing redundant~~aggregating a plurality of requests into a single request and ~~requesting sending the single request for~~ a single copy of the real-time streaming media ~~from to~~ the wide area network;

(c) after act (b), buffering the single copy of the real-time streaming media at the at least one aggregation module; and

(d) using the buffered single copy of the real-time streaming media, delivering the streaming media to the plurality of receivers.

2. (Previously Presented) A method as recited in claim 1, wherein the at least one aggregation module is remote from at least one of the plurality of receivers.

3. (Cancelled)

4. (Previously Presented) A method as recited in claim 1, further comprising delivering separate instances of the streaming media to the plurality of receivers by the at least one aggregation module.

5. (Previously Presented) A method as recited in claim 1, further comprising selecting a media format for delivering the streaming media to the plurality of receivers.

6. (Original) A method as recited in claim 1, further comprising delivering the streaming media to each of the plurality of receivers by a multicast broadcast.

7. (Previously Presented) A method as recited in claim 1, further comprising converting the single copy of the streaming media into a standardized media format.

8. (Original) A method as recited in claim 1, wherein the system comprises a cable system having a plurality of used channels for display broadcast programming to the plurality of receivers and a plurality of unused channels.

9. (Previously Presented) A method as recited in claim 8, further comprising identifying when to deliver the single copy of the real-time streaming media to the plurality of receivers by at least one of the plurality of unused channels.

10. (Currently Amended) A computer program product for implementing, in a system having a plurality of receivers, a method for providing streaming media from a wide area network to the plurality of receivers, the computer program product comprising:

a computer readable medium carrying computer-executable instructions for implementing the method, wherein the method comprises the following acts:

(a) receiving at the aggregation module a request for streaming media accessible via a wide area network from each of a plurality of receivers, each request comprising an identifier representative of the receiver making the request;

(b) after act (a), using the aggregation module, ~~removing redundant~~aggregating a plurality of requests into a single request and requesting-sending the single request for a single copy of the streaming media ~~from to~~ the wide area network;

(c) after act (b), buffering the single copy of the streaming media at the aggregation module; and

(d) using the buffered single copy of the streaming media, delivering the streaming media to the plurality of receivers.

11. (Currently Amended) In a system having a plurality of receivers and at least one aggregation module, a method for providing streaming media from a network to the plurality of receivers, the method comprising the following acts:

(a) receiving at an aggregation module a request for streaming media accessible via a network from each of a plurality of receivers;

(b) after act (a), ~~removing-redundant~~aggregating a plurality of requests into a single request and ~~requesting-sending the single request for~~ a single copy of the streaming media ~~from-to~~ the network through a proxy module in communication with the aggregation module;

(c) after act (b), receiving the single copy of the streaming media at the aggregation module

(d) buffering the copy of the streaming media at the aggregation module; and

(e) delivering a stream of the buffered copy of the streaming media to a termination system for transmission to each of the plurality of receivers, wherein each of the plurality of receivers receives substantially the same packets of the buffered copy of the streaming media.

12. (Original) A method as recited in claim 11, wherein the network is selected from the group consisting of a wide area network and a local area network.

13. (Original) A method as recited in claim 12, wherein the network is the Internet.

14. (Cancelled)

15. (Previously Presented) A method as recited in claim 11, further comprising selecting a media format for delivering the streaming media to each of the plurality of receivers.

16. (Previously Presented) A method as recited in claim 15, further comprising delivering a plurality of instances of the streaming media to the plurality of receivers.

17. (Previously Presented) A method as recited in claim 15, further comprising delivering a single instance of the streaming media to the plurality of receivers.

18. (Original) A method as recited in claim 15, wherein each of the plurality of receivers includes at least one channel for receiving programming and at least one unused channel in the associated system.

19. (Original) A method as recited in claim 18, wherein the system is a cable system, a television system, or a satellite system.

20. (Previously Presented) A method as recited in claim 11, further comprising converting the copy of the streaming media into a standardized media format.

21. (Original) A method as recited in claim 11, wherein the request comprises at least one addressing mechanism for network resources and at least one identifier representative of a requesting receiver of the plurality of receivers delivering the request to the aggregation module.

22. (Original) A method as recited in claim 21, further comprising comparing a rating associated with the at least one addressing mechanism for network resources against a stored list of ratings to determine whether content associated with the at least one addressing mechanism for network resources is to be delivered to the requesting receiver.

23. (Original) A method as recited in claim 22, wherein the at least one addressing mechanism for network resources comprises a uniform resource locator.

24. (Previously Presented) A method as recited in claim 22, wherein the comparing occurs upon the proxy module delivering content retrieved from the network to the aggregation module.

25. (Currently Amended) A computer program product for implementing, in a system having a plurality of receivers and at least one aggregation module, a method for providing streaming media from a wide area network to the plurality of receivers, the computer program product comprising:

a computer readable medium carrying computer-executable instructions for implementing the method, wherein the computer-executable instructions comprise:

at an aggregation module, program code means for receiving a request for streaming media accessible via a proxy module from each of a plurality of receivers;

program code means for, after receiving the request, ~~removing redundant~~aggregating a plurality of requests into a single request and requesting sending the single request for a single copy of the streaming media ~~from to~~ a network ~~accessible to~~through the proxy module;

program code means for, after removing the redundant requests and requesting the single copy, buffering the single copy of the streaming media at the aggregation module; and

program code means for delivering the single copy of the streaming media to a termination system for transmission to each of the plurality of receivers, wherein each of the plurality of receivers receives substantially the same packet of the single stream of the buffered streaming media.

26. (Original) A computer program product as recited in claim 25, wherein the computer-executed instructions further comprise program code means for generating each request from each of the plurality of receivers using an input device.

27. (Original) A computer program product as recited in claim 25, wherein the computer-executed instructions further comprise program code means for delivering the buffered single copy of the streaming media from the aggregation module.

28. (Original) A computer program product as recited in claim 27, wherein the computer-executed instructions further comprise program code means for delivering the cached single copy of the streaming media from the aggregation module to the termination system.

29. (Previously Presented) A computer program product as recited in claim 27, wherein the computer-executed instructions further comprise program code means for selecting a media format for delivering the streaming media to each of the plurality of receivers.

30. (Previously Presented) A computer program product as recited in claim 27, wherein the computer-executed instructions further comprise program code means for converting the single copy of the streaming media into a standardized media format.

31-37 (Cancelled)

38. (Currently Amended) A system for displaying media retrieved from a network to a plurality of receivers, the system comprising:

- (a) a source module storing media;
- (b) a plurality of receivers communicating with the source module via a network, each of the plurality of receivers being configured to generate a request and receive the media from the source module at a first connection rate; and
- (c) an access module communicating with the plurality of receivers and the source module through the network, the access module being configured to receive the request for media, aggregate requests by removing redundant requests to create a single request, send the single request for a single copy of the media to the network, and then subsequently deliver the requested media in a format selected by the access module based upon changes to the first connection rate as media is delivered to two or more of the plurality of receivers.

39. (Original) A system as recited in claim 38, wherein the source module comprises a server.

40. (Original) A system as recited in claim 38, wherein the access module comprises at least one of each of a proxy module, a parental control module, and an aggregation module.

41. (Original) A system as recited in claim 40, wherein the proxy module is configured to retrieve media requested by at least one of the plurality of receivers.

42. (Previously Presented) A system as recited in claim 41, wherein the aggregation module is configured to convert the retrieved media into a standardized media format.

43. (Previously Presented) A system as recited in claim 38, wherein the aggregation module is configured to dynamically vary delivery of the requested media as either independent streams or as a multicast depending on traffic load on the network.

44. (Original) A system as recited in claim 43, wherein the aggregation module delivers multiple instances of the requested media to the plurality of receivers, each of the plurality of receivers receiving a separate instance of the media.

45. (Original) A system as recited in claim 44, wherein the aggregation module delivers a single instance of the requested media to the plurality of receivers, each of the plurality of receivers receiving the single instance of the media.

46. (Original) A system as recited in claim 45, wherein each of the plurality of receivers is capable of displaying a plurality of video channels, at least one of the plurality of video channels being unused.

47. (Original) A system as recited in claim 46, wherein the aggregation module delivers a single instance of the requested media to the plurality of receivers on the unused video channel.

48. (Previously Presented) The method of claim 7, wherein the standardized media format is at least one of Windows Media, MPEG, Real, AVI, QuickTime, and Cinepak.